DON Human Research Protection Program

Ejection seat testing, NAWC-WD China Lake

IED protection, NRL

USN Hospital Ship *Mercy*

DON Human Research Protection Program

What's New
14 November 2006

DoD Training Day

Washington, DC

OUTLINE

- Background
- DDR&E Initiative and Inspection
- DON Response
- DON Human Research Protection Program (DON HRPP)
- Education and Training Policy
- SECNAVINST 3900.39D
- Range of Challenges

Human Subject Research: Critical for Navy/Marine Corps

- Research involving human subjects is essential for optimizing warfighter performance
  - Operator and weapon system integration
  - Human factors engineering (advanced CIC, aircraft displays, emergency egress systems)
  - Protective clothing and devices development (IED protection, helmets, shipboard firefighting gear)
  - Recruit and shipboard training
  - Disease prevention and treatment (malaria vaccine)
  - Reduction of non-battle injuries (diving tables, decompression schedules)
  - Combat casualty care and management

1600 Known DON Research Projects

Background: National Experience

- Human Subject Protection History
  - Nuremberg Trial, PHS Syphilis study, etc.

- Prestigious Institutions shut down
  - JHU, Duke, U of IL-C, U Penn
- Loss of Public Trust
  - National-level concern, media attention
- Significant costs for litigation and rebuilding research programs

Non-Compliance in Other Services and Federal Agencies

- ***U.S. Government Mind Control Experiments – LSD, MKULTRA, MKDELTA (1950-1970s)*:** The CIA and US Army collaborated on research using LSD and other drugs in violation of DoD policies and procedures for chemical or medical research. **The research was conducted without informed consent and the subjects were denied information on dangers involved. One known suicide.**

- ***Department of Veterans Affairs (DVA) (2003)*:** DVA declared a 90-day national "stand down" in 2003 for all human subject research and development activities to focus attention on a proactive review to ensure the protection of human subjects and the ethical conduct of research. The **"stand down" was ordered in response to the death of subjects; invasive research conducted without IRB review and approval; unqualified researchers conducting research; and failure of the IRB to meet minimal standards.**

DoN Adverse Events and Incidents of Non-Compliance

- ***Human Radiation Experiments (1940s – 1970s):*** *The* Advisory Committee for Human Radiation Experiments (ACHRE), established by Executive Order in 1994, investigated reports of possible unethical experiments funded and/or conducted by the federal government, including DoN, decades ago. ACHRE's 1995 report found that government agencies, including the **military services, kept critical information secret from subjects; failed to obtain informed consent; and presented interventions considered controversial at the time as if they were "standard practices," some of which caused injury to subjects.**

- ***Projects SHAD, Copper Head, Flower Drum, Shady Grove, Autumn Gold, among others (1963-1970)*:** More than **5,800 Naval personnel aboard Navy ships exposed to nerve agents and biological simulant aerosol spray released by aircraft** to test protective clothing, gas masks, and ship vulnerability to penetration.

DoN Adverse Events and Incidents of Non-Compliance

- ***U. S. Naval Academy Midshipmen (1999-2001)*:** Failed collaboration and communication among the Food and Drug Administration (FDA), Navy Medical Department, Henry M. Jackson Foundation for the Advancement of Military Medicine, and the Naval Academy. Research designed to evaluate the effects of specially formulated nutritional products on the bone mass of midshipmen; **92 of approximately 260 sensitive research files "lost" and confidentiality of sensitive personal medical information breached.**

- ***National Naval Medical Center, Bethesda MD (2001-2003)*:** Orthopedic Surgery Department research involving 48 subjects injected with contrast dye **not submitted to, reviewed, nor approved by the Command Institutional Review Board (IRB); not properly supervised by a physician; poorly designed research; inadequate informed consent procedures; and injection of the dye into shoulder joints may have required prior approval by the FDA (not obtained).**

DON Experience

Incidents of noncompliance with human subject protections are possible in a variety of settings:

- Fleet/Force
- Training and Operational Commands
- SYSCOMs
- Navy Hospitals
- U.S. Naval Academy

Others?

DDR&E* Initiative

- JAN 04: Increased Oversight
  - Inspections of all 12 DoD Components
  - Reviewed Component policies for compliance with Federal regulations and DoD directives
  - Convened Flag-level committee for human research
  - Required Components to develop and implement a Management Plan
  - ***Threatened to terminate all DoD human subject research on 31 DEC 04***

*Director, Defense Research & Engineering

DDR&E Inspection Findings

- OCT 04: DDR&E reports Navy policy “not in full compliance with Federal policies on human subjects protection.”
  - No single point of accountability for human subject protections
  - Navy needs to update policies and ensure all commands comply with federal and DoD policies
  - Inadequate procedures for oversight of SYSCOMs

Navy Response

- APR 05: Navy Under Secretary designates Surgeon General (SG) as single point of accountability (POA) for human research
- AUG 05: SG delegates to the Chief of Naval Research (CNR) responsibility for oversight and monitoring of SYSCOMs, operational and training commands, and extramural research.
- SEP 05: CNR establishes Research Protections Division (ONR 343).
- *03 NOV 06: SECNAVINST 3900.39D signed*

DON Human Research Protection Program (HRPP)

Federal regulations and DoD policy

- SECNAV/UNSECNAV
- Surgeon General
- DON HRPP (BUMED and ONR team)
- COs/Institutional Officials
- Institutional Review Boards
- Principal Investigators

Local policies and procedures

HRPP Structure

DON Human Research Protection Program

SECNAV / UNSECNAV

SG

DON HRPP

SG / BUMED

- Clinical Investigation Program / GME
- Medical R&D
- NPRST
- USNA
- Brigs

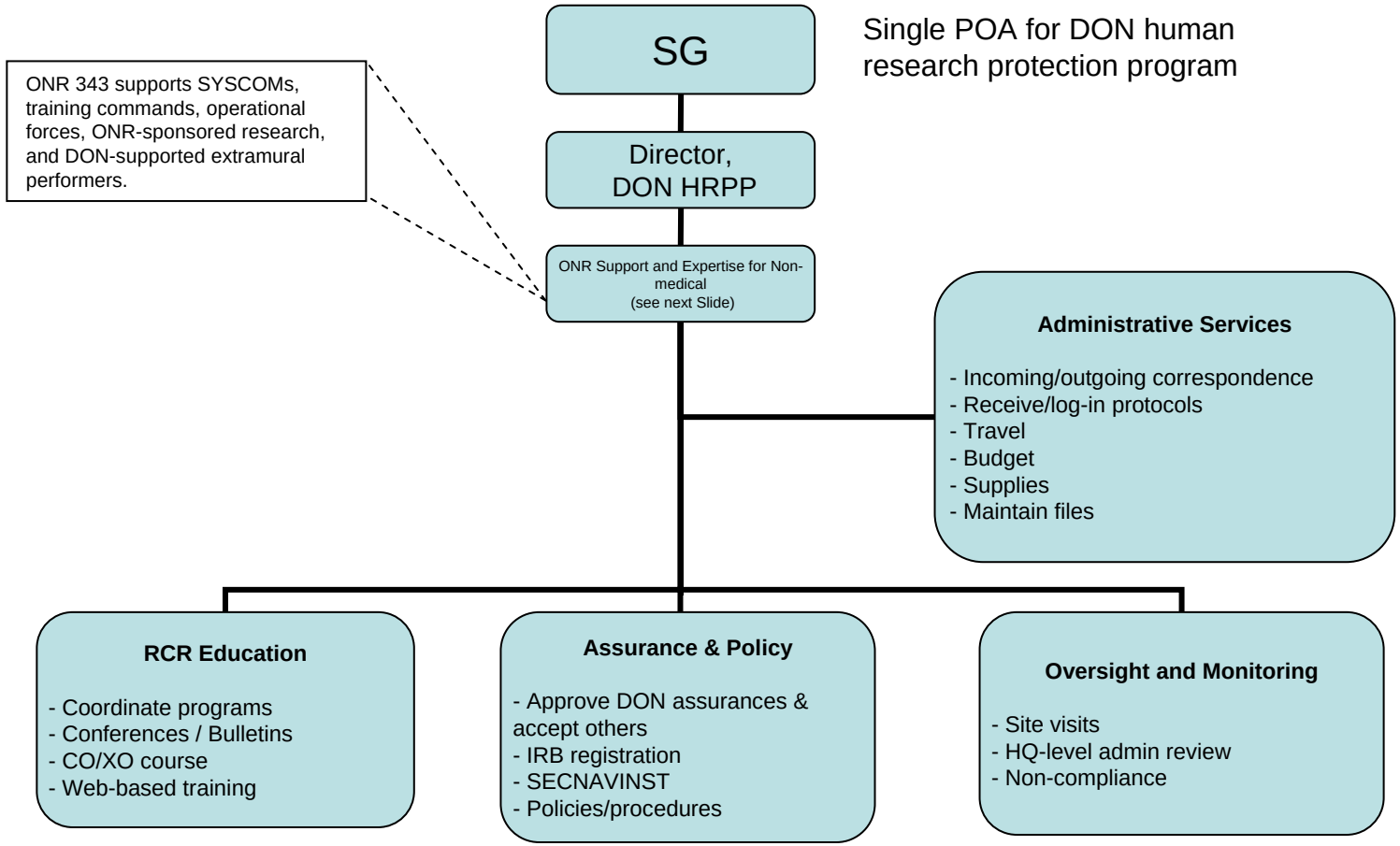
CNR / ONR 343

- Operational Commands
- Training Commands
- SYSCOMs
- Extramural performers

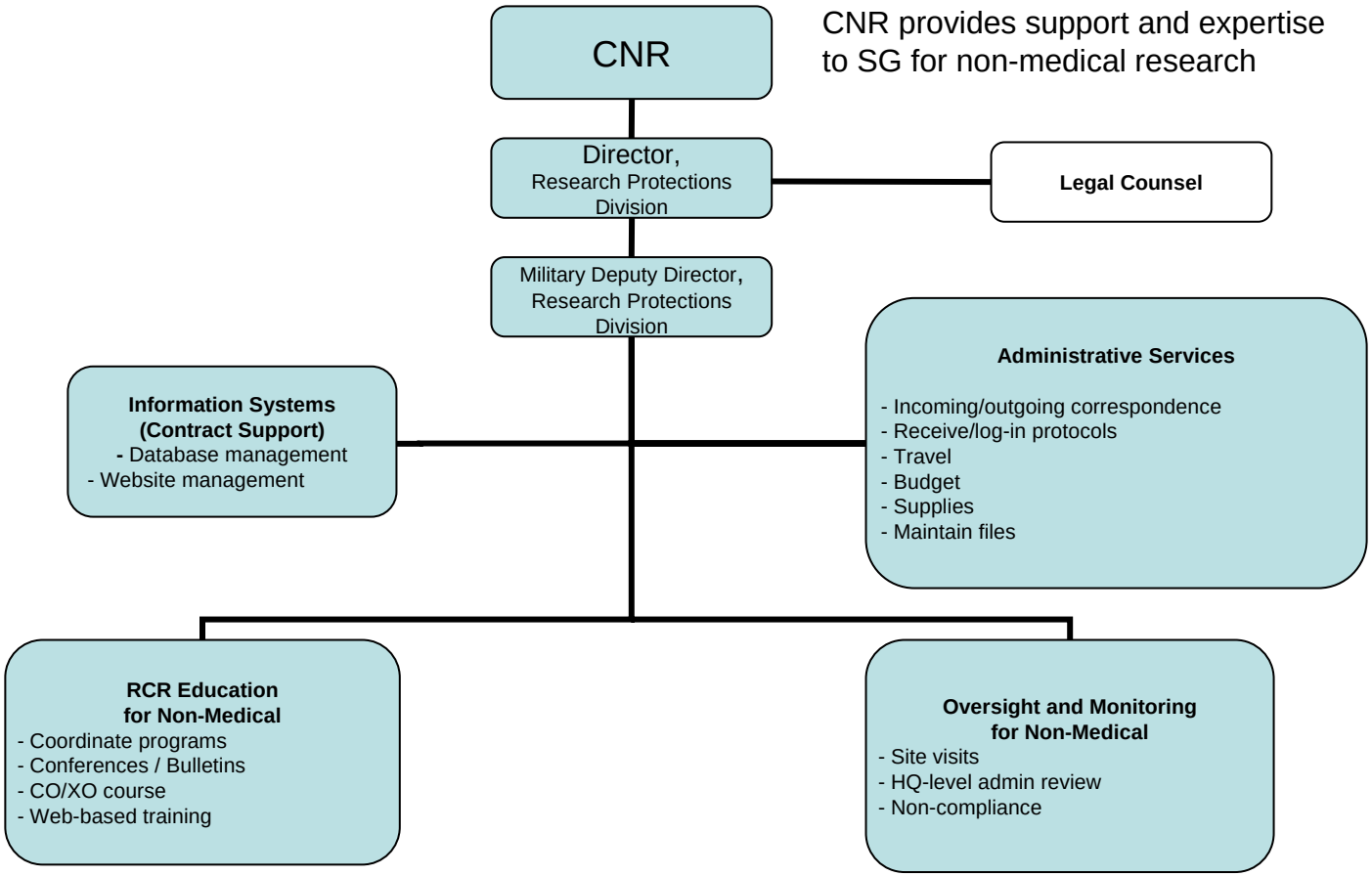
SECNAVINST 3900.39D

- SG is the single point of accountability
- **Only SG can accept/approve Assurances** (formal written agreements outlining compliance requirements with human research protection)
- CNR provides expertise and support
- DoDD 3216.2 enforced

DON Human Research Protection Program

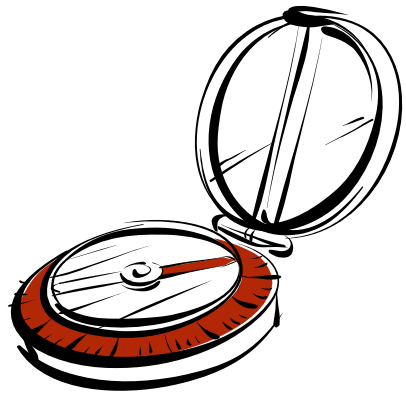


DON Human Research Protection Program



Compass Set: Guiding Principles

- Support all DON human research efforts
  - "Find a Way" vs. "It Can't Be Done"
  - Work *with* Performers and Warfighters
  - Enable critical human subject research
- Prepare for Adverse Events
  - Foster environment of ethical conduct
  - Demonstrate due diligence



- Focus on local Institution HRPP
  - Command Leader (CO, Institutional Official (IO))
- Enhance public trust in USN/USMC

RHUMB Lines

DON Human Research Protection Program

A product of...
Navy Office of Information
www.chinfo.navy.mil
www.navy.mil
703.697.5342

RHUMB LINES
Straight Lines to Navigate By

October 31, 2006

Fiscal Year 2007 Department of the Navy Objectives

The five objectives below reflect the priorities of the Secretary of the Navy, the Chief of Naval Operations, and the Commandant of the Marine Corps. Now based on fiscal-year vice calendar-year to better align with DoN's institutional processes, the following objectives reinforce the 2006 objectives and reflect efforts and successes achieved to date.

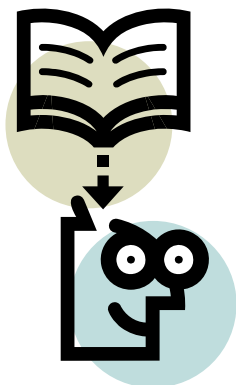
1. ***Provide a Total Naval Workforce capable and optimized to support the National Defense Strategy that will:***
   - Assure Naval capability and capacity to meet GWOT requirements.
   - Ensure recruiting and retention meets projected Navy and Marine Corps requirements, with particular focus on active and reserve components "low density/high demand" skill sets such as Naval Special Warfare, Seabees, Reconnaissance Marines, EOD, and Medical specialties.
   - Ensure high quality and levels of support services to service members and their families.
   - Develop agile and flexible personnel management through the Force Management Oversight Council Strategic Plan.
   - Implement the National Security Personnel System – Spiral 1.0.
2. ***Use the Navy-Marine Corps Team to aggressively prosecute the GWOT).***
   - Provide Combatant Commanders with skilled forces for combat operations, especially in Iraq and Afghanistan.
   - Optimize contribution to SPECOPS Forces and the implementation of Marine Corps SPECOPS Command.
   - Continue to develop and expand the NECC to include its interdependence with the Marine Corps.
   - Provide Combatant Commanders the tools to counter Improvised Explosive Devices.
3. ***Build the Navy-Marine Corps Force for Tomorrow.***
   - Strengthen the Navy and Marine Corps role in the Joint/Interagency Team, emphasizing the Naval Services' strengths of access, persistent presence, and small footprint.
   - Establish a Shipbuilding Plan, which has the consensus of the administration, Congress, and contractor teams to build the required type and number of ships.
   - Establish and implement a strategy for Marine Corps modernization/reconstitution programs (ground and aviation)
   - Continue development of the Department of the Navy mission in Homeland Defense/Security including the integration of multi-national and commercial maritime industry support into Maritime Domain Awareness.
4. ***Emphasize Safety. Manage risk to improve mission effectiveness and to safeguard the people and resources of the Navy-Marine Corps Team.***
   - Improve safety performance across DON to meet Secretary of Defense Strategic Planning Guidance (SPG) to reduce baseline mishap rates by 75% by the end of FY2008.
   - Deploy a DON-wide web-based Risk Management Information System (RMIS) that will facilitate unit level safety program management and provide aggregate reporting, analysis and tracking of all reportable hazards and mishaps.
   - Establish a corporate risk management and mitigation strategy and ensure that Department leaders and managers use risk-based approaches for planning and problem solving.
5. **Reinforce ethics as a foundation of exemplary conduct within the Department of the Navy.**
   - Continue emphasis on coordination and training of ethics counselors.
   - Teach and enforce ethics and standards of exemplary conduct consistently, starting at the earliest career stages.

For the full 2007 Department of the Navy Objectives please see http://www.navy.mil

The objectives below reflect the priorities of the SECNAV, CNO, and CMC for FY 07.

4. Emphasize Safety. Manage risk to improve mission effectiveness and to safeguard the people and resources of the Navy-Marine Corps Team.
5. Reinforce ethics as a foundation of exemplary conduct within Department of Navy.

Education & Training Policy



Education & Training Policy

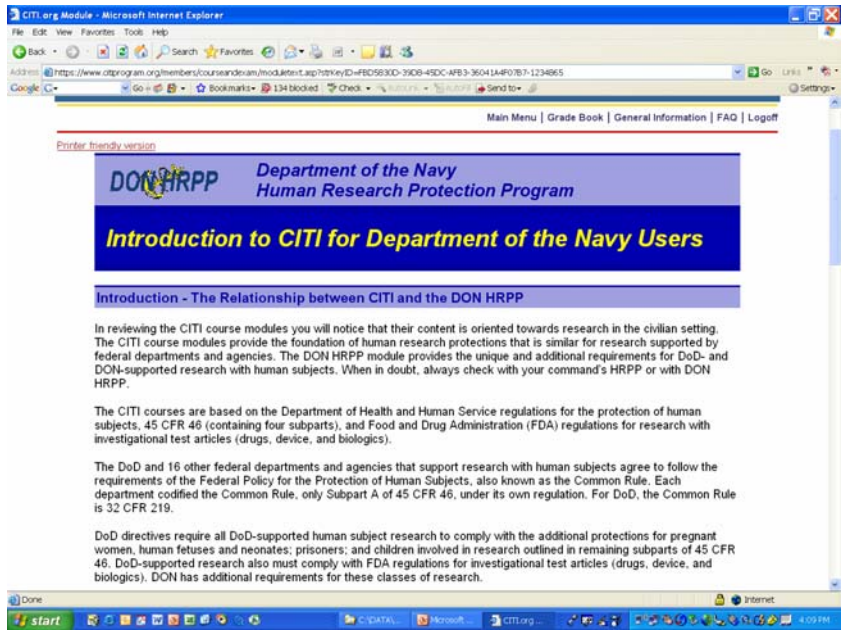
- Scope: All personnel who conduct, review, approve, support, manage, or oversee research must complete training.

- Commands may use: Collaborative Institutional Training Initiative (CITI) or own Command program
  - "One size does not fit all"
  - NIH program specifically tailored to NIH policies and procedures and has a biomedical focus.

Education & Training Policy

DON Human Research Protection Program

- CITI
  - Web-based
  - Oriented to biomedical and social behavioral research
  - Tailored to roles and responsibilities
  - 23 “Learner Groups” – leadership to research support
  - Available 24/7
  - Completion certificate



- Initial training: 1 – 6 hours (depending on role)
- Continuing training: 3 – 6 hours every three years

Education & Training Policy

- Individuals serving in several roles must complete the **most comprehensive** requirements in CITI
- "Most comprehensive" requirements: IRB Chair/member and HRPP/IRB staff
  - If you are PI and IRB member, complete the IRB member requirements
  - If you are scientific reviewer and PI, complete PI requirements

Education & Training Policy

- DON HRPP-specific modules
  - Introduction
  - “Institutional Instructions”
  - Senior Navy and Command Leadership module
  - DON Information and Resource module
  - Modules “under construction”:
    - Navy Investigators
    - Navy IRB chairs and members

Education & Training

- DON HRPP Handbook
  - Policy guidance to supplement SECNAVINST
  - HRPP as a whole: institution, investigator, IRB, and HRPP/IRB support

- Outreach
  - Web sites: BUMED and ONR
  - Newsletter: *Research Protections Update*

SECNAVINST 3900.39D

Significant Changes in 3900.39D

Title, Terms, and Training:

- Changed from “Protection of Human Subjects” to “Human Research Protection Program” to reflect national standard and broader responsibilities
- Changed “human use” to “human research” and “research with humans”
- Introduces more explicit education and training requirement

Significant Changes in 3900.39D

SECNAV Authority:

- **SECNAV** designates Navy SG as single point of accountability
  - SECNAV delegates the authority and responsibility for the DON HRPP to the **SG**, except for those responsibilities retained by SECNAV and those delegated to UNSECNAV.
- **SECNAV** is the approval authority for all research protocols involving:
  - Waivers of informed consent requirements under 10 USC 980.
  - Exception from informed consent requirements for emergency medicine research.
  - Waiver of requirements of DON policy.

Significant Changes in 3900.39D

UNSECNAV is the approval authority for research involving:

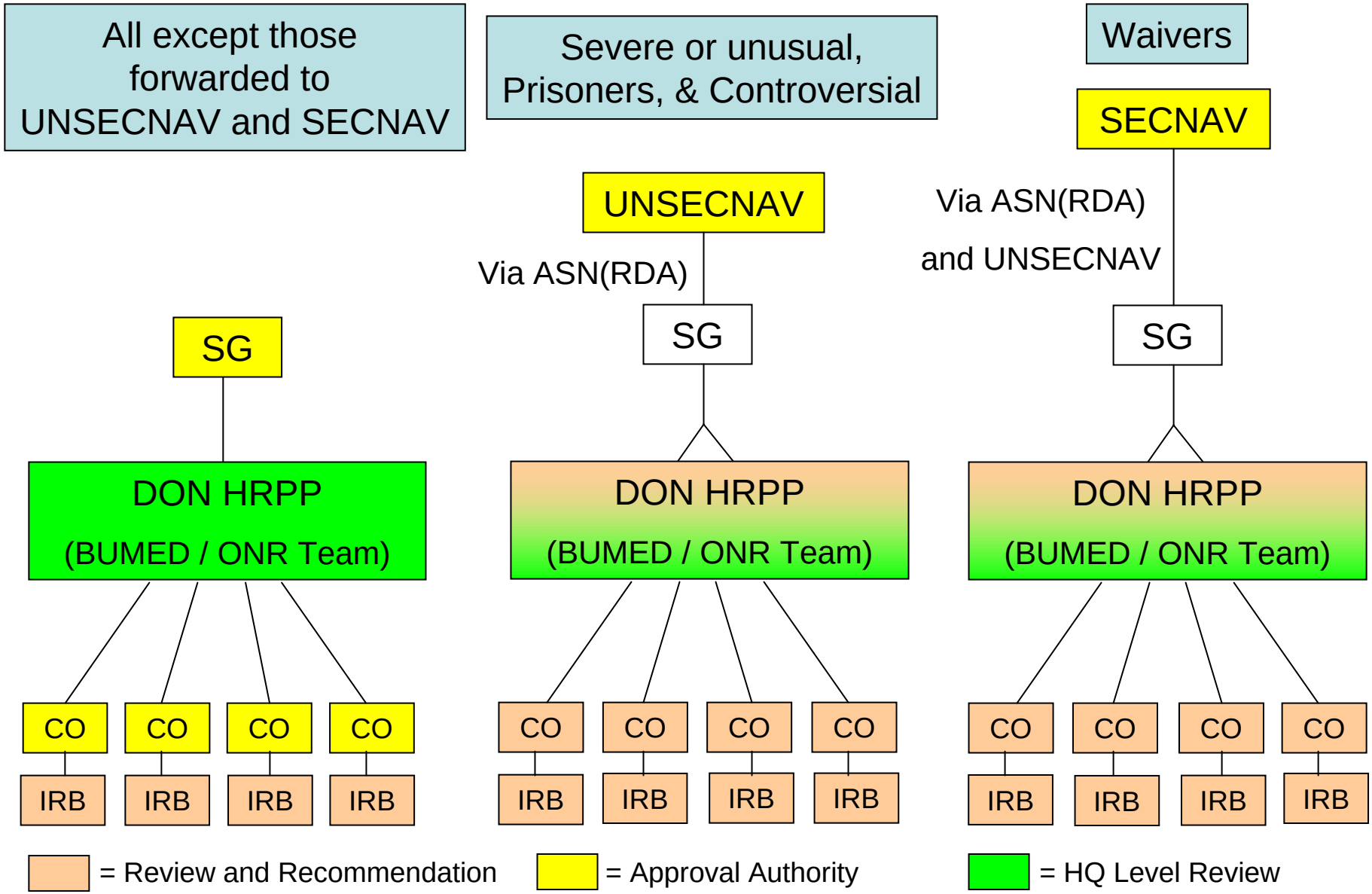
- Severe or unusual intrusions, either physical or psychological, on human subjects.
- Prisoners *[research with POWs or detainees is prohibited].*
- Potentially or inherently controversial topics (such as those likely to attract significant media coverage or that might invite challenge by interest groups).

Significant Changes in 3900.39D

Continued …

- **UNSECNAV** forwards to **DDR&E** for final determination:
  - Research involving exposure of human subjects to the effects of nuclear, biological or chemical warfare agents or weapons, as required by DoDD 3216.2.
  - Research protocols that would require action by a DHHS official under 45 CFR 46.
- **UNSECNAV** forwards all **classified research** to SECDEF, via DDR&E, for approval.

Final Approval Authority



Sensitive Issues/Reviews

- **Staffing research protocol** issues for SECNAV and UNSECNAV:
  - Follow DDR&E and Secretary HHS model
  - Establish *ad hoc* panel of military and/or civilian experts, as needed
  - DON HRPP staff and OGC support the panel.
  - Panel provides recommendations to the UNSECNAV and SECNAV

Significant Changes in 3900.39D

- **Command responsibility to:**
  - Meet Assurance, scientific and IRB review, and monitoring requirements
  - Ensure an independent review of research for scientific merit or scholarship prior to IRB review
  - Address treatment and follow-up of research-related injury
  - Negotiate agreements in collaborative research or IRB review*
  - Review allegations of non-compliance with human research protections
  - Review allegations of research misconduct

* SG reviews and approves agreements prior to assigning IRB review, approval, and/or oversight to other institutions.

Significant Changes in 3900.39D

- **Regardless of risk level**, superiors shall not influence subordinates' decisions to participate in research
- Dual review required for **survey research**
- Clarified requirements for:
  - DON-supported **extramural research**
  - Research involving **Investigational Test Articles** (drugs, devices, biologics)

Significant Changes in 3900.39D

- **Reporting* requirements** defined for:
  - **SG**
  - **COs**
  - **DON-supported extramural performers**
  - **IRBs**
  - **Investigators**

* Unanticipated problems; SAEs; non-compliance; research misconduct; etc.

Significant Changes in 3900.39D

- **IRB membership requirements – clarified**
  - Current federal employee, appointed IPA, or consultant under 5 USC 3109
- **Principal Investigator (PI) – defined**
  - Current federal employee, IPA, or consultant under 5 USC 3109
- **Public release of research information – clarified**
  - Appropriate review and approval per DoDD 5230.9 and SECNAVINST 5720.44B

Range of Challenges

- Multiple Participants
  - I-MEF Camp Pendleton, USMC, DARPA, Daimler-Chrysler, & DOE/Sandia
  - HIV Natural History Study – tri-service agreement
- Dramatic increase in performance sites
  - 4 → 35 Human Performance Center sites
- International Scope
  - Peru – New IRB at Naval Medical Research Center Detachment
  - Canada – Diving research at Defence R&D Canada
- Unique Research Environment
  - Navy Experimental Diving Unit (NEDU)

DON HRPP

Email: humanresearch@us.med.navy.mil

Web site:
http://navymedicine.med.navy.mil/humanresearch/

Web site:

http://www.onr.navy.mil/sci_tech/34/343/